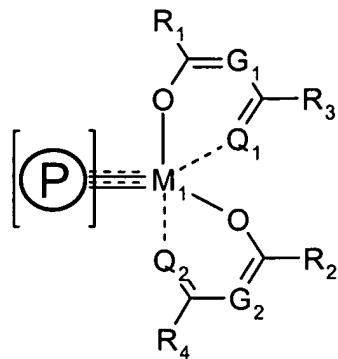


In the claims:

1. (original) An optical recording medium comprising a substrate, a recording layer and optionally one or more reflecting layers, wherein the recording layer comprises a compound of formula



(I) or a tautomeric or mesomeric form thereof,

wherein

G_1 and G_2 are each independently of the other $C(R_5)$ or N ;

M_1 is a lanthanide or transition metal of groups 4 to 10;

\square is a phthalocyanino diradical;

Q_1 and Q_2 are each independently of the other O or S ,

R_1 and R_2 are each independently of the other C_1 - C_{12} alkyl, C_3 - C_{12} cycloalkyl, C_2 - C_{12} alkenyl or C_3 - C_{12} cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_6 , or C_6 - C_{10} aryl, C_1 - C_9 heteroaryl, C_7 - C_{12} aralkyl or C_2 - C_{12} heteroaralkyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_7 ;

R_3 and R_4 are each independently of the other hydrogen, hydroxy, $S-R_8$, $O-R_8$, $O-CO-R_8$, $OCOOR_8$, NH_2 , $NH-R_8$, NR_8R_9 , $NHCOR_8$, NR_8COR_{10} , $NHCOOR_8$, NR_8COOR_{10} , ureido, $NR_8-CO-NHR_{10}$, or C_1 - C_{12} alkyl, C_3 - C_{12} cycloalkyl, C_2 - C_{12} alkenyl or C_3 - C_{12} cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_6 , or C_6 - C_{10} aryl, C_1 - C_9 heteroaryl, C_7 - C_{12} aralkyl or C_2 - C_{12} heteroaralkyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_7 ;

each R_5 , independently of any other R_5 , is hydrogen, or C_1 - C_{12} alkyl, C_3 - C_{12} cycloalkyl, C_2 - C_{12} alkenyl or C_3 - C_{12} cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_6 , or C_6 - C_{10} aryl, C_1 - C_9 heteroaryl, C_7 - C_{12} aralkyl or C_2 - C_{12} heteroaralkyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_7 ;

wherein R₁ and R₂, R₂ and R₃, R₃ and R₄ or R₁ and R₄ can be linked by a bonding member, or two of R₁, R₂, R₃ and R₄ can each be linked by a bonding member to one of the two other R₁, R₂, R₃ and R₄ to form pairs, and each bonding member is a direct bond or a bridge O, S or N(R₈); or R₁ forms with R₅ of G₁ and/or R₃ forms with R₅ of G₂ a saturated, mono- or poly-unsaturated or aromatic 5- or 6-membered ring which may optionally contain 1, 2 or 3 identical or different hetero atoms -O-, -S-, -N= or -N(R₈)-, which ring is unsubstituted or substituted by one or more, where applicable identical or different, radicals R₇; and/or R₂ forms with R₅ of G₁ and/or R₄ forms with R₅ of G₂ a saturated or mono- or poly-unsaturated 5- or 6-membered ring which may optionally contain 1, 2 or 3 identical or different hetero atoms -O-, -S-, -N= or -N(R₈)-, which ring is unsubstituted or substituted by one or more, where applicable identical or different, radicals R₆;

R₆ is halogen, hydroxy, O-R₁₁, O-CO-R₁₁, oxo, S-R₁₁, thioxo, NH₂, NH-R₁₁, NR₁₁R₁₂, NH₃⁺, NH₂R₁₁⁺, NHR₁₁R₁₂⁺, NR₁₁R₁₂R₁₃⁺, NR₁₁-CO-R₁₃, NR₁₁COOR₁₃, cyano, formyl, COO-R₁₁, carboxy, carbamoyl, CONH-R₁₁, CONR₁₁R₁₂, ureido, NH-CO-NHR₁₃, NR₁₁-CO-NHR₁₃, phosphato, P(=O)R₁₁R₁₃, POR₁₁OR₁₃, OPR₁₁R₁₃, OPR₁₁OR₁₃, P(=O)R₁₁OR₁₃, P(=O)OR₁₁OR₁₃, OP(=O)R₁₁OR₁₃, OP(=O)OR₁₁OR₁₃, OPO₃R₁₁, sulfato, sulfo, R₁₄, N=N-R₁₄, or C₁-C₈alkoxy or C₃-C₈cycloalkoxy each unsubstituted or mono- or poly-substituted by halogen;

R₇, independently of any other R₇, is R₁₅, halogen, nitro, cyano, thiocyanato, hydroxy, S-R₈, O-R₈, O-CO-R₈, OCOOR₈, NH₂, NH-R₈, NR₈R₉, NHCOR₈, NR₈COR₁₀, NHCOOR₈, NR₈COOR₁₀, ureido, NR₈-CO-NHR₁₀, NH₃⁺, NH₂R₈⁺, NHR₈R₉⁺, NR₈R₉R₁₀⁺, N=N-R₁₅, N=CR₈R₉, N=CR₁₆R₁₇, C(R₁₈)=NR₈, C(R₁₈)=NR₁₆, C(R₁₈)=CR₁₆R₁₇, CHO, CHOR₈OR₁₀, COR₉, CR₉OR₈OR₁₀, CONH₂, CONHR₈, CONR₈R₉, SO₂R₈, SO₃R₈, SO₂NH₂, SO₂NHR₈, SO₂NR₈R₉, COOH, COOR₈, B(OH)₂, B(OH)(OR₈), B(OR₈)OR₁₀, phosphato, P(=O)R₈R₁₀, POR₈OR₁₀, P(=O)R₈OR₁₀, P(=O)OR₈OR₁₀, OPR₈R₁₀, OPR₈OR₁₀, OP(=O)R₈OR₁₀, OP(=O)OR₈OR₁₀, OPO₃R₈, sulfato, sulfo, or C₁-C₅alkyl, C₃-C₆cycloalkyl, C₁-C₅alkylthio, C₃-C₆cycloalkylthio, C₁-C₅alkoxy or C₃-C₆cycloalkoxy each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₆;

R₈, R₉ and R₁₀ are each independently of the others R₁₅, R₁₉-[O-C₁-C₄alkylene]_m, R₁₉-[NH-C₁-C₄alkylene]_m, or C₁-C₈alkyl, C₃-C₈cycloalkyl, C₂-C₈alkenyl or C₃-C₈cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C₁-C₅alkoxy or C₃-C₆cycloalkoxy radicals; or

R_8 and R_9 together with the common nitrogen are pyrrolidine, piperidine, piperazine or morpholine, each of which is unsubstituted or mono- to tetra-substituted by C_1 - C_4 alkyl; or

R_8 and R_{10} together are C_2 - C_8 alkylene, C_3 - C_8 cycloalkylene, C_2 - C_8 alkenylene or C_3 - C_8 cycloalkenylene, each of which is unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C_1 - C_5 alkoxy or C_3 - C_6 cycloalkoxy radicals;

R_{11} , R_{12} and R_{13} are each independently of the others C_1 - C_8 alkyl, C_3 - C_8 cycloalkyl, C_2 - C_8 alkenyl, C_3 - C_8 cycloalkenyl, R_{19} -[O - C_1 - C_4 alkylene]_m, R_{19} -[NH - C_1 - C_4 alkylene]_m, C_6 - C_{10} aryl, C_4 - C_9 heteroaryl, C_7 - C_{10} aralkyl or C_5 - C_9 heteroaralkyl; or

R_{11} and R_{12} together with the common nitrogen are pyrrolidine, piperidine, piperazine or morpholine, each of which is unsubstituted or mono- to tetra-substituted by C_1 - C_4 alkyl;

R_{14} is C_6 - C_{12} aryl, C_4 - C_{12} heteroaryl, C_7 - C_{12} aralkyl or C_5 - C_{12} heteroaralkyl, each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R_7 ;

R_{15} is phenyl, C_4 - C_5 heteroaryl, C_7 - C_8 aralkyl or C_5 - C_7 heteroaralkyl, each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R_{20} ;

R_{16} and R_{17} are each independently of the other $NR_{11}R_{12}$, CN , $CONH_2$, $CONHR_6$, $CONR_6R_9$ or $COOR_9$;

R_{18} is R_{15} , hydrogen, cyano, hydroxy, C_1 - C_{12} alkoxy, C_3 - C_{12} cycloalkoxy, C_1 - C_{12} alkylthio, C_3 - C_{12} cycloalkylthio, amino, NHR_{13} , $NR_{11}R_{12}$, halogen, nitro, formyl, $COO-R_{11}$, carboxy, carbamoyl, $CONH-R_{11}$, $CONR_{11}R_{12}$, or C_1 - C_8 alkyl, C_3 - C_8 cycloalkyl, C_2 - C_8 alkenyl or C_3 - C_8 cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C_1 - C_5 alkoxy or C_3 - C_6 cycloalkoxy radicals; or

R_8 and R_{18} together are C_2 - C_8 alkylene, C_3 - C_8 cycloalkylene, C_2 - C_8 alkenylene or C_3 - C_8 cycloalkenylene, each of which is unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C_1 - C_5 alkoxy or C_3 - C_6 cycloalkoxy radicals;

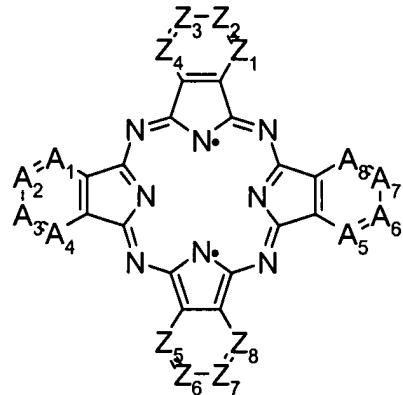
R_{19} is hydrogen, C_1 - C_4 alkyl or C_1 - C_3 alkylcarbonyl;

R_{20} is nitro, $\text{SO}_2\text{NHR}_{11}$, $\text{SO}_2\text{NR}_{11}\text{R}_{12}$, or $\text{C}_1\text{-C}_8\text{alkyl}$, $\text{C}_3\text{-C}_8\text{cycloalkyl}$, $\text{C}_1\text{-C}_8\text{alkylthio}$, $\text{C}_3\text{-C}_8\text{cycloalkylthio}$, $\text{C}_1\text{-C}_8\text{alkoxy}$ or $\text{C}_3\text{-C}_8\text{cycloalkoxy}$ each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, $\text{C}_1\text{-C}_5\text{alkoxy}$ or $\text{C}_3\text{-C}_6\text{cycloalkoxy}$ radicals;
and

m is a number from 1 to 4.

2. (previously presented) An optical recording medium according to claim 1, wherein G_1 and G_2 are each independently of the other $C(R_5)$;

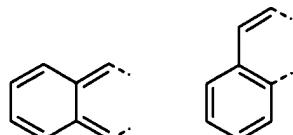
M_1 is a lanthanide or transition metal of groups 4 to 7;



is a phthalocyanino diradical of formula

, wherein A_1 to A_8 and Z_1 to

Z_8 are all independently of one another N or CR_{24} , and each R_{24} independently of the other R_{24} is H or



R_7 ; or two adjacent R_{24} together are 1,4-buta-1,3-dienylene,  or  , each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R_7 and wherein 1 or 2 carbon(s) may have been replaced by nitrogen; and

Q_1 and Q_2 are O;

R_3 and R_4 are each independently of the other hydrogen, hydroxy, S- R_8 , O- R_8 , NH₂, NH- R_8 , NR₈R₉; C₁-C₈alkyl, C₃-C₈cycloalkyl, C₂-C₈alkenyl or C₃-C₈cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_6 ; or C₆-C₁₀aryl or C₁-C₉heteroaryl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_7 ;

R_5 is hydrogen or forms a 5- or 6-membered ring with R_1 or R_2 ;

R_6 is halogen, hydroxy, $O-R_{11}$, $O-CO-R_{11}$, oxo, NH_2 , $NH-R_{11}$, $NR_{11}R_{12}$, or C_1-C_4 alkoxy unsubstituted or mono- or poly-substituted by halogen;

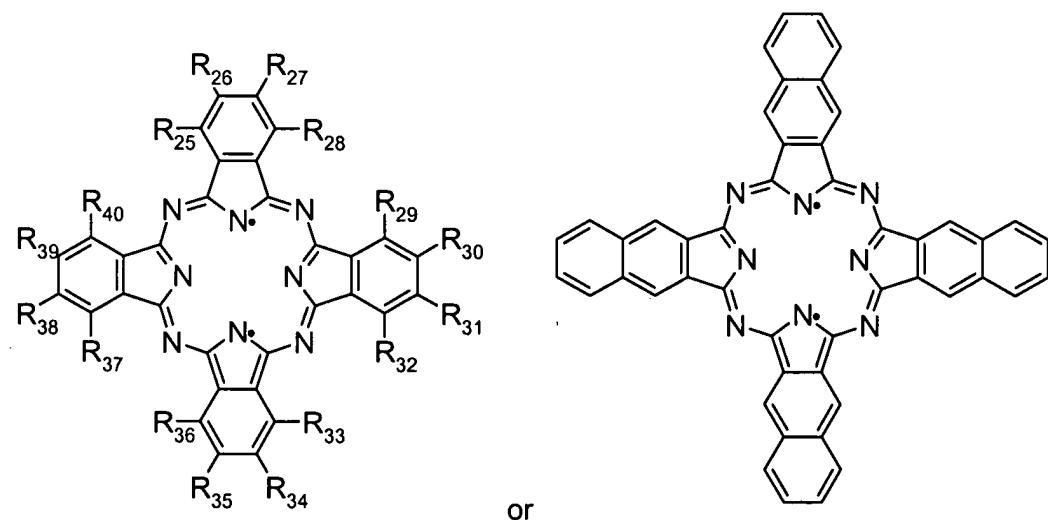
and

R_7 is halogen, nitro, cyano, thiocyanato, $S-R_8$, $O-R_8$, NH_2 , $NH-R_8$, NR_8R_9 , $NHCOR_8$, $N=CR_8R_9$, $N=CR_{16}R_{17}$, CHO , $CHOR_8OR_{10}$, COR_9 , $CONR_8R_9$, SO_2R_8 , $COOR_8$, or C_1-C_5 alkyl or C_1-C_5 alkoxy each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_6 .

3. (previously presented) An optical recording medium according to claim 1, wherein G_1 and G_2 are each independently of the other $C(R_5)$;

M_1 is Ti , Zr or Hf ;

\square is a phthalocyanino diradical of formula



wherein R_{25} to R_{40} are all independently of one another H, halogen, $O-R_8$, $S-R_8$, $O-CO-R_8$, $NH-R_8$, NR_8R_9 , CH_2OR_{11} , $CH_2NR_{11}R_{12}$, $C(R_{18})=CR_{16}R_{17}$, CHO , $CHOR_8OR_{10}$, $C(R_{18})=NR_8$, COR_9 , $CR_9OR_8OR_{10}$, CN , $COOH$, $COOR_8$, $CONH_2$, $CONHR_8$, $CONR_8R_9$, SO_2R_8 , SO_2NH_2 , SO_2NHR_8 , $SO_2NR_8R_9$, SO_3R_8 , $SiR_8R_9R_{10}$, POR_8OR_{10} , $P(=O)R_8R_{10}$, $P(=O)R_8OR_{10}$, $P(=O)OR_8OR_{10}$, $P(=O)(NH_2)_2$, $P(=O)(NHR_8)_2$, $P(=O)(NR_8R_9)_2$, OPR_8R_{10} , OPR_8OR_{10} , $OP(=O)R_8OR_{10}$, $OP(=O)OR_8OR_{10}$ or OPO_3R_8 , more especially H, halogen, $O-R_8$, $O-CO-R_8$, $NH-R_8$, NR_8R_9 , CH_2OR_{11} or $CH_2NR_{11}R_{12}$; and also Q_1 and Q_2 are O;

R_1 and R_2 are each independently of the other C_1-C_5 alkyl or C_2-C_5 alkenyl, each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R_6 , or phenyl or C_2-C_5 heteroaryl, each of which is unsubstituted or substituted by one or more, where applicable identical or different, radicals R_7 ;

R_3 and R_4 are each independently of the other hydrogen, hydroxy, $S-R_8$, $O-R_8$, NH_2 , $NH-R_8$, NR_8R_9 , or C_1-C_5 alkyl or C_2-C_5 alkenyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_6 , or phenyl unsubstituted or substituted by one or more, where applicable identical or different, radicals R_7 ;

R_5 is hydrogen or forms a 5- or 6-membered ring with R_1 or R_2 ;

R_6 is halogen, hydroxy, $O-R_{11}$, oxo, NH_2 , $NH-R_{11}$ or $NR_{11}R_{12}$;

and

R_7 is halogen, nitro, cyano, $O-R_8$, $NH-R_8$, NR_8R_9 , CHO, $CHOR_8OR_{10}$, COR_9 , $CONR_8R_9$, SO_2R_8 , $COOR_8$, or C_1-C_5 alkyl or C_1-C_5 alkoxy each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_6 .

4. (previously presented) An optical recording medium according to claim 1, wherein the compound of formula (I) contains branched C_3-C_{12} alkyl or branched C_3-C_{12} alkenyl.

5. (previously presented) An optical recording medium according to claim 1, wherein the recording layer is substantially amorphous.

6. (previously presented) An optical recording medium according to claim 1, additionally comprising a covering layer, wherein substrate, reflector layer, recording layer and covering layer are arranged in that order.

7. (previously presented) An optical recording medium according to claim 1, which in addition to comprising a compound of formula (I) comprises a metal-free chromophore.

8. (previously presented) An optical recording medium according to claim 1, wherein the compound of formula (I) is substantially amorphous.

9. (previously presented) A method of producing an optical recording medium according to claim 1, wherein a solution of a compound of formula (I) according to claim 1 is applied by spin-coating to a grooved substrate.

10. **(previously presented)** A method of recording or playing back data, wherein the data on an optical recording medium according to claim 1, are recorded or played back at a wavelength of from 350 to 500 nm.
11. **(previously presented)** An optical recording medium according to claim 2, wherein M_1 is Ti, Zr or Hf.
12. **(previously presented)** An optical recording medium according to claim 11, wherein M_1 is Zr.
13. **(cancelled)**
14. **(currently amended)** An optical recording medium according to claim [[13]] 3, wherein M_1 is Zr.